

INDEX OF DRAWINGS

DWG #	DRAWING TITLE
T-1	TITLE SHEET
E-1	INDEX OF DRAWINGS, LEGEND, ABBREVIATIONS, KEY PLAN AND GENERAL NOTES
E-2	STYLE-7 IMPLEMENTATION AND NETWORKING RISER DIAGRAM
E-3	B1 LEVEL MER SMOKE DETECTOR RISER DIAGRAM
E-4	B1 & B2 LEVELS STROBE, HORN AND SPEAKER RISER DIAGRAM
E-5	B1 LEVEL MER SMOKE DETECTOR AND STYLE-7 PLAN
E-6	B1 LEVEL SUBSTATION, EMR AND A.C. PLENUM SMOKE DETECTOR PLAN
E-7	B1 LEVEL STROBE, HORN AND SPEAKER PLAN SHEET 1 OF 2
E-8	B1 LEVEL STROBE, HORN AND SPEAKER PLAN SHEET 2 OF 2
E-9	B2 LEVEL EMR STROBE AND SPEAKER PLAN
E-10	B1 LEVEL SMOKE DETECTOR REMOVAL PLAN SHEET 1 OF 2
E-11	B1 LEVEL SMOKE DETECTOR REMOVAL PLAN SHEET 2 OF 2
E-12	B1 LEVEL TSC-M-NB1 BLOCK WIRING DIAGRAM
E-13	B2 LEVEL TSC-M-NB2 BLOCK WIRING DIAGRAM
E-14	NTC-X5 AND NTC-X6 BLOCK WIRING DIAGRAM
E-15	NTC-43 BLOCK WIRING DIAGRAM
E-16	NTC-4 BLOCK WIRING DIAGRAM
E-17	NTC-42 BLOCK WIRING DIAGRAM
E-18	3rd & 9th FLOOR MER, 10th FLOOR (ROOF) SMOKE DETECTOR RISER DIAGRAM
E-19	3rd & 9th FLOOR MER AND 10th FLOOR (ROOF) STROBE, HORN, SPEAKER AND WARDEN PHONE RISER DIAGRAM
E-20	3rd FLOOR MER & 10th FLOOR (ROOF) SMOKE DETECTOR PLANS
E-21	3rd FLOOR MER & 10th FLOOR (ROOF) STROBE, HORN AND SPEAKER PLAN
E-22	3rd FLOOR MER & 10th FLOOR (ROOF) REMOVAL PLAN
E-23	3rd FLOOR TSC-F1A-NB3 BLOCK WIRING DIAGRAM
E-24	3rd FLOOR TSC-M-NB3 BLOCK WIRING DIAGRAM
E-25	9th FLOOR MER SMOKE DETECTOR PLAN SHEET 1 OF 2
E-26	9th FLOOR MER SMOKE DETECTOR PLAN SHEET 2 OF 2
E-27	9th FLOOR MER STROBE, HORN AND SPEAKER PLAN SHEET 1 OF 2
E-28	9th FLOOR MER STROBE, HORN AND SPEAKER PLAN SHEET 2 OF 2
E-29	9th FLOOR MER SMOKE DETECTOR REMOVAL PLAN SHEET 1 OF 2
E-30	9th FLOOR MER SMOKE DETECTOR REMOVAL PLAN SHEET 2 OF 2
E-31	9th FLOOR TSC-M-NB3 BLOCK WIRING DIAGRAM
E-32	NTC-SB BLOCK WIRING DIAGRAM
E-33	NTC-F BLOCK WIRING DIAGRAM
E-34	STROBE, HORN AND SPEAKER CIRCUIT SCHEDULES
E-35	TYPICAL DETAILS AND WIRING DIAGRAMS SHEET 1
E-36	TYPICAL DETAILS AND WIRING DIAGRAMS SHEET 2

ABBREVIATIONS

ADDR.	ADDRESS (FOR PORT AUTHORITY PLANT & STRUCTURE USE.)	EXST.	EXISTING	RM	ROOM
ANNUN.	ANNUNCIATOR	FA	FIRE ALARM	RMT	REMOTE MULTIPLEX TERMINAL
AFF	ABOVE FINISHED FLOOR	FCO	FUSE CUTOFF	SPK	SPEAKER
ALD	ANALOG LOOP DRIVER	FL	FLOOR	SOL	SOLENOID
ATC	ADDRESSABLE TERMINAL CABINET	FMC	FLEXIBLE METALLIC CONDUIT	STR	STROBE
CAB.	CABINET	GSC	GALVANIZED STEEL CONDUIT	SE	SOUTHEAST
CKT(S)	CIRCUIT(S)	HRN	HORN	SW	SOUTHWEST
cd	CANDELA	JB	JUNCTION BOX	TEL	TELEPHONE
CL	CLOSET	MCC	MOTOR CONTROL CENTER	TSC	TERMINAL STRIP CABINET
COL	COLUMN	MER	MECHANICAL EQUIPMENT ROOM	TYP	TYPICAL
CONT.	CONTINUATION	N.T.S.	NOT TO SCALE	U.O.N.	UNLESS OTHERWISE NOTED
DWG	DRAWING	NE	NORTHEAST	WTC	WORLD TRADE CENTER
EL	ELECTRIC(AL)	NW	NORTHWEST	WT	WARDEN PHONE
ELV	ELEVATOR	PB	PULL BOX		
EMR	ELEVATOR MACHINE ROOM	PNL	PANEL		

LEGEND

- HEAVY LINE INDICATES WORK TO BE DONE
- HEAVY DASHED LINE INDICATES DEVICE AND/OR CIRCUITRY TO BE REMOVED
- LIGHT LINE INDICATES EXISTING TO REMAIN
- DASHED & DOTTED LINE INDICATES NEW CABLE(S) ROUTED IN EXIST. CONDUIT
- EXISTING FLEXIBLE CONDUIT TO BE REMOVED
- DASHED LIGHT LINE INDICATES FUTURE WORK BY OTHERS.
- FIRE ALARM CABLE IN 3/4" GALVANIZED STEEL CONDUIT.
- CABLE ENTERING LENGTH OF 3/4" GALVANIZED STEEL CONDUIT. END OF CONDUIT T BUSHING.
- NUMBER OF CABLE.
- TYPE OF CABLE
 - A - 2#12 AWG, 200V, 600V SHIELDED TWISTED PAIR TEFLON CABLE, CLASS E, AND BSA APPROVED N.Y.C. FOR LOCAL LAW #5.
 - B - 2#14 AWG, 200V, 600V UNSHIELDED TWISTED PAIR TEFLON CABLE, CLASS E, AND BSA APPROVED N.Y.C. FOR LOCAL LAW #5.
- FUSE CUT OUT, FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR.
- XNET CABINET, FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR.
- AUXILIARY POWER SUPPLY PAD-2R, FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR, SEE DETAIL "D" ON DWG E-36.
- PAD-XXX-X PAD NUMBER
- TSC NUMBER
- ADDRESSABLE PULL STATION, FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR, SEE DETAILS "E" ON DWG E-36.
- ADDRESSABLE SMOKE DETECTOR PYROTRONICS MODEL #FP-11 WITH MOUNTING BASE PYROTRONICS MODEL #FB-11, NO SUBSTITUTIONS. "XXX" REPRESENTS LAST THREE DIGIT DEVICE ADDRESS ONLY. CONTRACTOR SHALL TAG DETECTOR HAD AND BASE WITH COMPLETE SIX DIGIT DEVICE ADDRESS (INCLUDING NETWORK/LOOP AND DEVICE ADDRESSES) AS SHOWN ABOVE. FOR INSTALLATION, SEE DETAIL "C" ON DWG E-35 AND DETAILS "A", "C" ON DWG E-36.
- ADDRESSABLE SMOKE DETECTOR PYROTRONICS MODEL #FP-11 WITH HOUSING MODEL #AD-SILP AND SAMPLING TUBE MODEL #STA-X. THE SAMPLING TUBE SIZE TO BE FIELD SELECTED BASED ON THE DUCT SIZE. NO SUBSTITUTIONS. "XXX" REPRESENTS LAST THREE DIGIT DEVICE ADDRESS ONLY. CONTRACTOR SHALL TAG DETECTOR HAD AND BASE WITH COMPLETE SIX DIGIT DEVICE ADDRESS (INCLUDING NETWORK/LOOP AND DEVICE ADDRESSES) AS SHOWN ABOVE. FOR INSTALLATION, SEE DETAIL "B" ON DWG E-35.
- PYROTRONICS MODEL TRI-86R ADDRESSABLE INTERFACE SWITCH MODULE WITH SQUARE D TYPE KP12 RELAY MOUNTED IN JUNCTION BOX. SEE DETAILS "G" AND "H" ON DWG E-36.
- PYROTRONICS MODEL TRI-86D DUAL ADDRESSABLE INTERFACE SWITCH MODULE MOUNTED IN 6"X6"X4" JUNCTION BOX. SEE DETAIL "F" ON DWG E-36.
- ALD LOOP DEVICE ADDRESS: FIRST THREE DIGIT REPRESENT NETWORK/LOOP ADDRESS (AS DIRECTED BY ENGINEER), AND LAST THREE DIGIT REPRESENT DEVICE ADDRESS.
- WALL MOUNTED STROBE WITH BACK BOX WHEELLOCK MODEL #SHBB. THE NUMERALS WITH SUFFIX "cd" INDICATES STROBE CANDELA RATING AND MODEL # AS FOLLOWS:
 - 15cd - 15 CANDELA STROBE, WHEELLOCK MODEL #RSS-2415W-FR
 - 30cd - 30 CANDELA STROBE, WHEELLOCK MODEL #RSS-2430W-FR
 - 75cd - 75 CANDELA STROBE, WHEELLOCK MODEL #RSS-2475W-FR
 NO SUBSTITUTIONS. SEE DETAIL "B" ON DWG E-36.
- WALL MOUNTED COMBINATION STROBE/SPEAKER UNIT WITH BACK BOX WHEELLOCK MODEL #SBB. LISTED WITH RESPECTIVE CANDELA RATED STROBE, THE NUMERALS, WITH SUFFIX "W" INDICATES SPEAKER TAP SETTING AND SUFFIX "cd" INDICATES STROBE CANDELA RATING AND MODEL # AS FOLLOWS:
 - a) FOR SPEAKER TAP SETTING 4W:
 - 30cd - 30 CANDELA STROBE WITH SPEAKER, WHEELLOCK MODEL #ET70-2430W-FR
 - 75cd - 75 CANDELA STROBE WITH SPEAKER, WHEELLOCK MODEL #ET70-2475W-FR
 - b) FOR SPEAKER TAP SETTING LESS THAN OR EQUAL TO 2W:
 - 15cd - 15 CANDELA STROBE WITH SPEAKER, WHEELLOCK MODEL #E70-2415W-FR
 - 30cd - 30 CANDELA STROBE WITH SPEAKER, WHEELLOCK MODEL #E70-2430W-FR
 NO SUBSTITUTIONS. SEE DETAIL "B" ON DWG E-36.
- E.O.L. END OF LINE (1/2 WATT 24KΩ U.O.N.) RESISTOR.
- WARDEN TELEPHONE, FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR. MOUNTING HEIGHT 48" AFF TO CENTERLINE. SEE DETAIL "J" ON DWG E-36.
- SQ. PULL BOX 4 11/16" - UNLESS OTHERWISE NOTED
- POLARIZED ELECTRONIC HORN PYROTRONICS MODEL SEA-3 WITH TONE MODULE TM-1 AND END OF LINE DEVICE EL-32. NO SUBSTITUTION.
- AUXILIARY POWER SUPPLY, PYROTRONICS MODEL AS/P55-BFS-24-UL, FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR.
- BATTERY CABINET BB-55R, FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR.
- EXISTING WATER FLOW SWITCH
- EXISTING TAMPER SWITCH
- EXISTING PULL BOX
- EXISTING SPEAKER TO REMAIN
- EXISTING SPEAKER TO BE REMOVED
- EXISTING JUNCTION BOX TO BE REMOVED
- EXISTING SMOKE DETECTOR TO BE REMOVED
- EXISTING DUCT DETECTOR TO BE REMOVED
- EXISTING DELUGE SOLENOID VALVE
- EXISTING TERMINAL STRIP CABINET
- EXISTING ADDRESSABLE TERMINAL CABINET
- EXISTING NETWORK TERMINAL CABINET

GENERAL NOTES

- ALL FIRE ALARM CABLE 200V, 600V, SHIELDED CONDUCTORS, CLASS "E" (TEFLON OR APPROVED ALL OPEN AREA AND INSULATING METHOD AS CONTINUOUS THROUGHOUT).
- ASSEMBLE DRAIN WIRE INSULATING METHOD AS CONTINUOUS THROUGHOUT.
- PROGRAMMING OF BASIS PROGRAMMING OF ALL CONTRACTOR, FINAL C PRIOR TO PROGRAMMING.
- SET TAP SETTINGS ON WITH THERMATEX (O).
- ALL CONDUITS SHALL BY THE ENGINEER. CO FOR LABELING OF ALL PANELS.
- PATCH & SEAL PENET WITH THERMATEX (O).
- FOR MOUNTING DETAILS PULL STATION AND SH PERMITTED. ALL BOX AND WHITE PAINT ON.
- ALL DEVICES AND WIRING BY THE ENGINEER. CO FOR LABELING OF ALL PANELS.
- CONTRACTOR SHALL RE TO BE INSTALLED ARE OF THE ENGINEER.
- ALL EQUIPMENT SHOWN REMOVED BACK TO THE RESPONSIBLE FOR DIS.
- CONTRACTOR SHALL TE CONTINUITY AND SHORT.
- UPON INSTALLATION AN BE TESTED IN THE PRE SPECIFICATION #16910. APPROVAL.
- GROUNDING BUSHINGS CABINETS OR ENCLOSURE GREEN STRANDED GROU GROUND STUD.
- ALL PANELS, FCO, BOX KINDORF CATALOG #B.
- THE EXACT LOCATION PRIOR TO INSTALLATION.
- ALL FINISHES DISTURB CONDITION.
- CONTRACTOR SHALL BE OF ALL F.A. CABLES A IN THIS PROJECT INCL TSC, ATC, FCO AND N.
- INSTALL AREA SMOKE REPEAT COLS. SEE DW.
- LABELING OF SHUTDOWN THE CONTRACTOR, CO WORK SHALL BE DONE PANELS WILL BE MADE.
- FOR XNET AND INTERF SIEMENS REFERENCE C.
- ASBESTOS IS PRESENT a) FLUFFY INSULATION ACS-9-IN UNIT IN TH b) FLUFFY INSULATION RETURN AIR SHAFT. c) CEMENTITIOUS INSU AIR SHAFT. CONTRACTOR SHALL AV

DUCT MOUNTED SMOKE DETECTORS PLACEMENT C

- DUCT MOUNTED SMOKE DETECTORS SHALL BE PLACED AND INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND THE 1990 EDITION OF NFPA 72E, STANDARD ON AUTOMATIC FIRE DETECTORS.
- SELECTION AND TRIMMING OF SAMPLING TUBE LENGTH SHALL BE BASED ON THE DUCT WIDTH WHERE THE DUCT MOUNTED SMOKE DETECTOR IS INSTALLED, CONFORMING TO MANUFACTURER'S RECOMMENDATIONS.
- DUCT MOUNTED SMOKE DETECTORS SHALL ONLY BE INSTALLED IN STRAIGHT RUN OF DUCT WITH A MINIMUM LENGTH OF 36".
- INSTALL SMOKE DETECTOR AT THE CENTER LINE OF THE DUCT HEIGHT AND AS CLOSE AS POSSIBLE TO SIX (6) DUCT WIDTHS FROM ANY BENDS OR CONNECTIONS WHERE SUCH CONDITION IS NOT FEASIBLE, SMOKE DETECTOR SHALL BE INSTALLED AT THE MID POINT OF THE STRAIGHT RUN.
- FOR ANY SMOKE DETECTOR ASSOCIATED WITH RETURN AIR FAN (ACR) OR EXHAUST FAN (EL), ONLY ONE (1) SMOKE DETECTOR WILL BE REQUIRED, TO BE INSTALLED THE STRAIGHT DUCT, DOWNSTREAM OF THE AIRFLOW FROM THE FAN.
- DUCT MOUNTED SMOKE DETECTOR SHALL BE INSTALLED AT LEAST 12" AWAY FROM ANY EXISTING DETECTORS.